IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:

Stephen G. Perlman Confirmation No. 9275

Application No. 09/871,415

Filed: May 30, 2001

For: **SYSTEM AND METHOD FOR MULTIMEDIA CONTENT SIMULCAST**

Group Art Unit: 2131

Examiner: Aravind K. Moorthy

Date of Submission: January 24, 2008

APPEAL BRIEF

TO THE COMMISSIONER FOR PATENTS:

Appellant, Applicant in the above-captioned patent application, appeals the rejection of claims 29, 31-41, 43-45, and 56-60 set forth in the Office Action mailed September 26, 2007 (hereinafter, the "current Office Action"). As discussed in detail below, Appellant respectfully submits that those claims are allowable and seeks allowance of those claims.

I. REAL PARTY IN INTEREST

The real party in interest is the assignee, Digeo, Inc.

II. RELATED APPEALS AND INTERFERENCES

Appellant filed a Notice of Appeal for the present application (Application No. 09/871,415) with a Pre-Appeal Brief Request for Review on May 15, 2006. A Notice of Panel Decision from Pre-Appeal Brief Review mailed on June 7, 2006 indicated that the rejection had been withdrawn and prosecution reopened. Accordingly, Appellant did not file an Appeal Brief at that time and there are no related decisions rendered by the Board of Patent Appeals and Interferences or a court.

III. STATUS OF CLAIMS

Claims 29, 31-41, 43-45, and 56-60 are pending in the application. Claims 1-28, 30, 42, and 46-55 have been canceled. Claims 29, 31-41, 43-45, and 56-60 are being appealed.

IV. STATUS OF AMENDMENTS

No amendments have been filed in response to the current Office Action. Any amendments filed after a previous final or non-final rejection have been entered. Appellant notes that the current Office Action is not a final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

There are five independent claims pending in the present application, each of which is involved in the present appeal and is concisely explained below with citations to corresponding portions of the specification and drawings as required by 37 C.F.R. § 41.37(c)(1)(v). These citations are provided in order to illustrate specific examples and embodiments of the recited claim language, and not to limit the claims. Except as indicated otherwise, the reference numbers correspond to components shown in FIG. 16 of the present application.

Claim 29 is directed to a machine readable storage medium having program code stored thereon which, when executed by a processor, cause said processor (page 43, lines 13-16) to perform the following operations:

- encrypting a first group of unencrypted multimedia channels (e.g., see page 33, lines 8-9 (providing an example wherein 'premium' channels such as HBO, Showtime, Encore, Cinemax, etc. are simulcast), see also FIG. 17 and page 33, lines 17-20 (providing another example wherein selected basic channels are also simulcast)) using conditional access ("CA") encryption (see, e.g., CA module 1603) to produce a first group of encrypted multimedia channels (e.g., element 1626 corresponding to "premium" digital with standard encryption);
- encrypting said first group of unencrypted multimedia channels (e.g., the same group of premium and/or selected basic channels discussed above) using a different type of encryption (see, e.g., alternate encryption module 1602 and page 32, lines 1-4 (indicating that the alternate encryption module 1602 uses non-standard encryption formats such as Digital Video Broadcast (DVB) encryption, Secure Sockets Layer (SSL) encryption, Data Encryption Standard (DES) encryption, or other encryption formats)) to produce a second group of encrypted multimedia channels (e.g., element 1628 corresponding to "premium" digital with alternate encryption); and
- simulcasting (e.g., page 33, lines 7-10) said first group (1626) of encrypted multimedia channels simultaneously with said second group (1628) of encrypted multimedia channels to a plurality of multimedia subscribers having either a new multimedia receiver or a legacy multimedia receiver (see, e.g., page 31, lines 7-17), said second group (1628) of encrypted multimedia channels being decryptable by said new multimedia receivers and said first group (1626) of encrypted multimedia channels being decryptable by said legacy multimedia receivers.

Claim 41 is directed to a headend system (1600) for processing multimedia streams. The headend system (1600) includes the following:

- a first encryption module (1603) to encrypt a plurality of first multimedia streams (e.g., see page 33, lines 8-9 (providing an example wherein 'premium' channels such as HBO, Showtime, Encore, Cinemax, etc. are simulcast), see also FIG. 17 and page 33, lines 17-20 (providing another example wherein selected basic channels are also simulcast)) using conditional access ("CA") encryption;
- a second encryption module (1602) to encrypt said same plurality of first multimedia streams (e.g., the same group of premium and/or selected basic channels discussed above) using a different type of encryption (see, e.g., page 32, lines 1-4 (indicating that the alternate encryption module 1602 uses non-standard encryption formats such as DVB encryption, SSL encryption, DES encryption, or other encryption formats)); and
- a quadrature amplitude modulation module (1610) to modulate said plurality of first multimedia streams encrypted in both CA encryption and said different type of encryption for simulcasting (e.g., page 33, lines 7-10) to a plurality of multimedia subscribers at the same time, the plurality of multimedia subscribers having either a new multimedia receiver or a legacy multimedia receiver (see, e.g., page 31, lines 7-17), each new multimedia receiver being capable of decrypting said plurality of first multimedia streams encrypted in said different type of encryption (1628) and each legacy multimedia receiver being capable of decrypting said plurality of first multimedia streams encrypted in said CA encryption (1626).

Claim 56 is directed to a computer-implemented method for processing multimedia channels. The method comprises:

- encrypting a number of unencrypted multimedia channels (e.g., see page 33, lines 8-9 (providing an example wherein 'premium' channels such as HBO, Showtime, Encore, Cinemax, etc. are simulcast), see also FIG. 17 and page 33, lines 17-20 (providing another example wherein selected basic channels are also simulcast)) at a headend (1600) using conditional access ("CA") encryption (see, e.g., CA module 1603) to produce a first group of encrypted

multimedia channels (e.g., element 1626 corresponding to "premium" digital with standard encryption);

- simultaneously encrypting the same unencrypted multimedia channels (e.g., the same group of premium and/or selected basic channels discussed above) at the headend (1600) using a different type of encryption (see, e.g., alternate encryption module 1602 and page 32, lines 1-4 (indicating that the alternate encryption module 1602 uses non-standard encryption formats such as DVB encryption, SSL encryption, DES encryption, or other encryption formats)) to produce a second group of encrypted multimedia channels (e.g., element 1628 corresponding to "premium" digital with alternate encryption);
- simulcasting (e.g., page 33, lines 7-10) said first group (1626) of encrypted multimedia channels with said second group (1628) of multimedia channels at the same time from the headend (1600) to a plurality of multimedia subscribers each having either a new multimedia receiver or a legacy multimedia receiver (see, e.g., page 31, lines 7-17), each new multimedia receiver being capable of decrypting said second group (1628) of encrypted multimedia channels and each legacy multimedia receiver being capable of decrypting said first group (1626) of encrypted multimedia channels.

Claim 57 is a means plus function claim as permitted by 35 U.S.C. § 112, sixth paragraph. Claim 57 is directed to a system comprising:

- means (structure corresponds to CA encryption module 1603 and alternate encryption module 1602, see page 31 lines 18-24 and page 32, lines 1-4) for encrypting first channels (e.g., see page 33, lines 8-9 (providing an example wherein 'premium' channels such as HBO, Showtime, Encore, Cinemax, etc. are simulcast), see also FIG. 17 and page 33, lines 17-20 (providing another example wherein selected basic channels are also simulcast)) using both conditional access ("CA") encryption (e.g., using CA encryption module 1603 to produce element 1626 corresponding to 'premium' digital standard encryption) and a different form of encryption (e.g., using alternate encryption

module to produce element 1628 corresponding to 'premium' digital with alternate encryption); and

- means (structure corresponds to QAM 1610 and RF Modulators 115, see page 3, lines 15-22 and page 4, lines 1-4) for simulcasting (e.g., page 33, lines 7-10) said first channels encrypted in both CA encryption (1626) and said different form of encryption (1628) to subscribers simultaneously, the subscribers having either a new multimedia receiver or a legacy multimedia receiver (see, e.g., page 31, lines 7-17), said first channels encrypted using said different form of encryption (1628) being decryptable by said new multimedia receivers and said first channels encrypted using said CA encryption (1626) being decryptable by said legacy multimedia receivers.

Claim 58 is directed to a method for deploying new multimedia receivers. The method comprises:

- encrypting (see, e.g., CA module 1603) a first set of channels (e.g., see page 33, lines 8-9 (providing an example wherein 'premium' channels such as HBO, Showtime, Encore, Cinemax, etc. are simulcast), see also FIG. 17 and page 33, lines 17-20 (providing another example wherein selected basic channels are also simulcast)) using a first type of encryption (see, e.g., element 1626 corresponding to "premium" digital with standard encryption);
- encrypting (see, e.g., alternate encryption module 1602) said first set of channels (e.g., the same group of premium and/or selected basic channels discussed above) using a second type of encryption (see, e.g., page 32, lines 1-4 (indicating that the alternate encryption module 1602 uses non-standard encryption formats such as DVB encryption, SSL encryption, DES encryption, or other encryption formats), see also element 1628 corresponding to "premium" digital with alternate encryption); and
- simultaneously broadcasting (e.g., page 33, lines 7-10) said encrypted sets of channels that have been respectively encrypted in said first type of encryption (1626) and said second type of encryption (1628) to subscribers having either

a new multimedia receiver or a legacy multimedia receiver (see, e.g., page 31, lines 7-17);

- said channels encrypted using said second type of encryption (1628) being decryptable by said new multimedia receivers and said channels encrypted using said first type of encryption (1626) being decryptable by said legacy multimedia receivers.

VI. GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

The following rejections are to be reviewed on appeal:

1. The rejection of claims 29, 31, 32, 36-41, 43, 44, and 56-60 under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent No. 6,690,795 issued to Richards ("Richards");

2. The rejection of claims 33-35 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Richards in view of U.S. Patent No. 6,542,610 issued to Traw et al. ("Traw"); and

3. The rejection of claim 45 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Richards in further view of Traw.

VII. ARGUMENTS

Each contested rejection is addressed separately below.

1. Rejection of claims 29, 31, 32, 36-41, 43, 44, and 56-60 under 35 U.S.C. § 102(e) as being allegedly anticipated by Richards.

Claims 29, 31, 32, 36-41, 43, 44, and 56-60, which includes each of the independent claims, stand rejected as being allegedly anticipated by Richards. This basis for rejection was first set forth in the current Office Action. For the reasons set forth below, Appellant respectfully submits that the rejection of claims 29, 31, 32, 36-41, 43, 44, and 56-60 is improper.

Independent Claim 29

The rejection of independent claim 29 is improper because, among other reasons, Richards does not teach or suggest:

> ***encrypting a first group of unencrypted multimedia channels*** using conditional access ("CA") encryption to produce a first group of encrypted multimedia channels;
>
> ***encrypting said first group of unencrypted multimedia channels*** using a different type of encryption to produce a second group of encrypted multimedia channels; and
>
> ***simulcasting said first group*** of encrypted multimedia channels ***simultaneously with said second group*** of encrypted multimedia channels to a plurality of multimedia subscribers….

As Appellant pointed out in pages 13-15 of the Amendment filed July 13, 2007, new multimedia receivers may use advanced types of encryption as compared to legacy multimedia receivers. A person of ordinary skill in the art will recognize that the different types of encryption are not interchangeable. For example, the legacy multimedia receivers cannot decrypt the more advanced types of encryption that the new multimedia receivers are able to decrypt.

According to claim 29, the ***same,*** first group of unencrypted multimedia channels is encrypted using *two different types of encryption*. Thus, after encryption, the two encrypted groups are two versions of the same multimedia content. Each version includes the content of the first group of multimedia channels, but with a different encryption. The two versions are then ***simulcast*** (e.g., broadcast simultaneously) to subscribers. For example, Figure 16 (reproduced below) of the present application shows two versions of "premium" digital channels being broadcast at the same time. A first version (see element 1626) is encrypted using standard encryption, and a second version (see element 1628) is encrypted using alternate encryption.

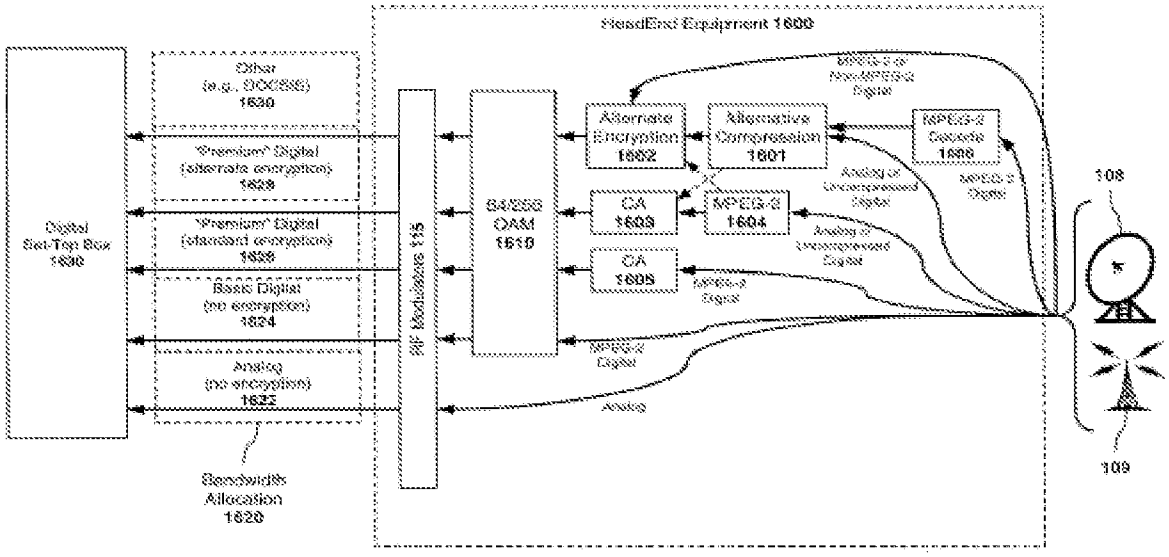

FIG. 16

As shown in the drawing below, claim 29 provides a parallel process that encrypts original, unencrypted multimedia channels two times using two different types of encryption so that two viewers, using different types of receivers, can view the same program at the same time.

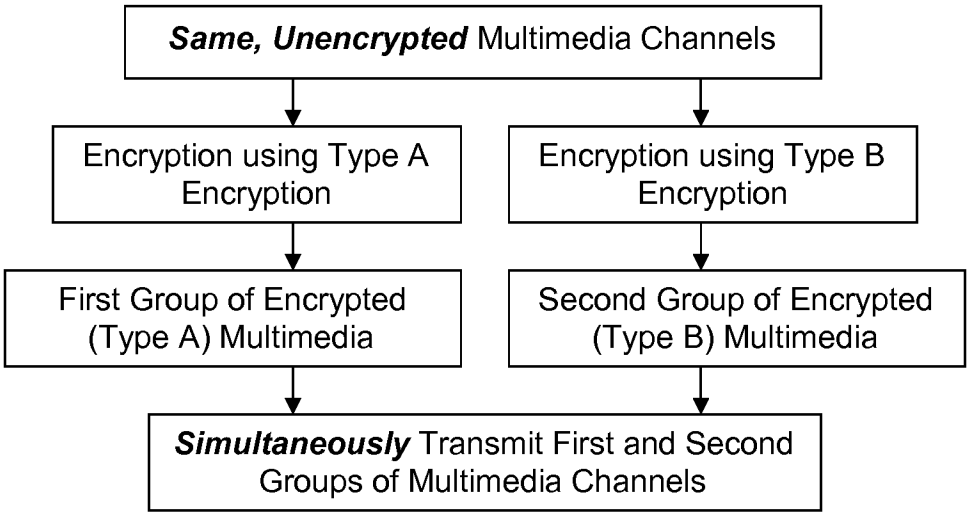

Illustration of Claim 29
(two types of encryption for the same group of channels)

As with the Examiner's previous rejections based on other references (discussed below), Richards is completely silent as to ***encrypting the same multimedia channel twice*** and then transmitting the encrypted channels ***at the same*** so they can be decrypted by receivers with different capabilities.

Page 4 of the current Office Action cites col. 6, lines 57-67 and col. 7, line 63 to col. 8, line 2 of Richards for the assertion that Richards teaches encrypting a first group of unencrypted multimedia channels using conditional access ("CA") to produce a first group of encrypted multimedia channels and using a different type of encryption to produce a second group of encrypted multimedia channels. However, Appellant respectfully disagrees. Rather, Richards teaches encrypting different broadcasts (e.g., channel A and channel B) using different keys. This is completely unrelated to encrypting the same broadcast using different encryption techniques.

Richards teaches that a segment key (SK) is used to encrypt the content of a packet. Col. 6, lines 6-12. To provide security, the SK key may be provided through an out-of-band channel and may be encrypted by another key (CUSTOMER_CODE). Col. 6, lines 57-67. To deter certain attacks, "***each program*** is encrypted using a different key, such as SK_A for program A, SK_B for program B, and so on." Col. 7, lines 63-66. (Emphasis added). This embodiment of Richards is summarized in the drawing below.

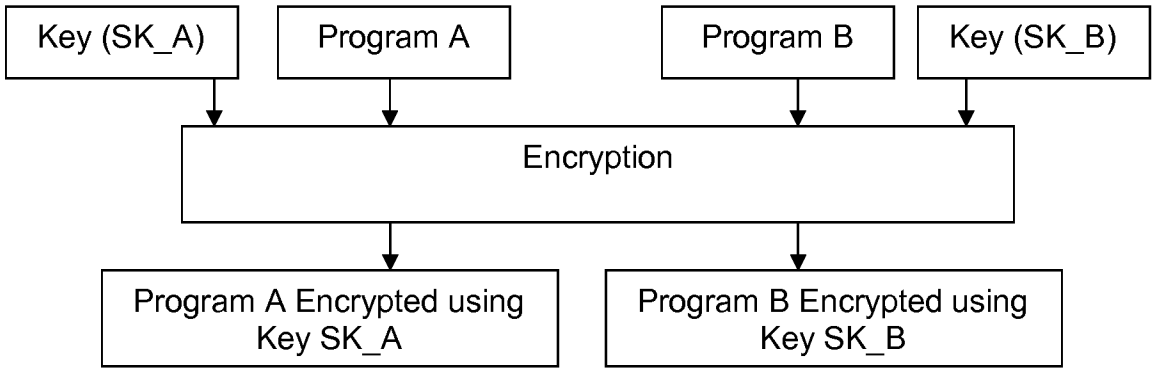

Illustration of Cited Portion of Richards
(two programs, two keys, no indication of different encryption types)

Appellant respectfully submits that there are at least three clear errors with citing this teaching against claim 29. First, Richards does not teach or suggest encrypting the

same multimedia channels multiple times. Rather, program A is encrypted using one key (SK_A) and program B is encrypted using another key (SK_B). This is completely different than encrypting, for example, program A using two different types of encryption.

Second, Richards does not teach or suggest encrypting the same channel using ***different types of encryption***. Rather, as illustrated above, Richards teaches encrypting different programs using ***different keys***. As a person of ordinary skill in the art will recognize, using two different types of encryption algorithm types is very different than using two different keys for the same algorithm. An encryption algorithm typically transforms data based on a code referred to as a key. Thus, a single type of encryption may be used with a large number of potential codes (keys) to encrypt/decrypt data. While Richards teaches using different keys for different programs, Appellant respectfully submits that Richards is silent as to using two different types of encryption for the same group of multimedia channels.

Third, Richards does not teach or suggest ***simulcasting*** two different versions of the same group of multimedia channels. As discussed on page 9 of the Amendment filed November 22, 2005, simulcasting is understood to mean simultaneously broadcasting different versions of the same content. For example, a concert may be simultaneously broadcast by radio and television. As another example, it is common for broadcasters to simulcast two versions of a television program in two different languages by using a second audio programming (SAP) channel. English may be broadcast over a channel while Spanish, for example, is simultaneously broadcast over a corresponding SAP channel. For additional simulcasting examples, see http://en.wikipedia.org/wiki/Simulcast.

Claim 29 requires "simulcasting said first group of encrypted multimedia channels simultaneously with said second group of encrypted multimedia channels." As discussed above, however, ***Richards teaches broadcasting two different programs*** (Program A and Program B) encrypted using different keys, not two different versions of the same program encrypted using different encryption algorithms. Page 4 of the current Office Action cites col. 10, lines 5-12 of Richards for the assertion that Richards teaches simulcasting. However, this portion of Richards merely discusses the features

of a different embodiment wherein the key SK is itself encrypted with another key, referred to as a Program Key (PK). See, col. 9, lines 12-25. Appellant respectfully submits that encrypting one key using another key is completely unrelated to the present invention.

Appellant notes that Richards teaches transmitting multiple versions of a Control Channel Key (CCK) that is encrypted using different Channel Access Keys (CAK) during a transition period. See, col. 16, line 65 to col. 17, line 18 (indicating that the CCK keys are encrypted according to both an "old" CAK key and a "new" CAK key during the transition period). However, again, Richards provides no indication that the CCK keys are encrypted using different types of encryption algorithms (only different CAK keys). Further, Richards is completely silent with regard to encrypting the same channel or group of channels multiple times using different types of encryption.

While the Examiner first cites Richards in the current Office Action, Appellant respectfully submits that each of the seven Office Actions on the merits has failed to provide a single reference that encrypts the same group of channels using two different types of encryption and simulcasts the two different versions at the same time. The following chart is intended to illustrate Appellants frustration with repeatedly arguing that the cited references do not include these claim limitations, only to once again have a new reference cited against the claims that lacks the same limitations.

Date of Office Action	References Cited	Appellant's Argument	Examiner's Response
July 7, 2004	- Hamilton et al. (U.S. Pat. No. 5,504,816). - Takahashi et al. (U.S. Pat. No. 6,507,907)	- "Hamilton does not concurrently transmit the same group of multimedia channels encrypted using two types of encryption." Amendment filed October 4, 2004, page 16. - "While Takahashi does disclose different types of encryption, the reference does not disclose or suggest simulcasting the same	"Applicant's arguments…are moot in view of new grounds of rejection." Office Action mailed March 8, 2005, page 2.

		channels using different techniques." *Id*. at page 20.	
August 26, 2005	- Ludtke (U.S. Pat. No. 6,154,206)	- "There is absolutely no discussion whatsoever [in Ludtke] of simultaneously broadcasting channels encrypted in both CA encryption and a different form of encryption." Amendment filed November 22, 2005, page 10.	"Applicant's arguments…are not persuasive." Office Action mailed February 14, 2006.
February 14, 2006	Ludtke	"Ludtke provides absolutely no discussion of simultaneously broadcasting two versions of the same channel using two different types of encryption." Pre-Appeal Brief Request For Review filed May 15, 2006, page 2.	"Reopen Prosecution…The rejection is withdrawn and a new Office Action will be mailed." Notice of Panel Decision from Pre-Appeal Brief Review mailed June 7, 2006.
August 17, 2006	Caronni (U.S. Pat. No. 6,195,751)	"Caronni does not teach or suggest encrypting the same, original channel twice and then transmitting the encrypted channels at the same time." Amendment filed December 18, 2006, page 13.	"Applicant's arguments…are moot in view of new grounds of rejection." Office Action mailed March 16, 2007, page 2.
March 16, 2007	Bock et al. (U.S. Pat. No. 5,953,418)	"Bock is completely silent as to encrypting the same multimedia channel twice and then transmitting	"Applicant's arguments…are moot in view of

		the encrypted channels at the same [time] so they can be decrypted by receivers with different capabilities." Amendment filed March 16, 2007, page 15.	new grounds of rejection." Office Action mailed September 26, 2007, page 3.
September 26, 2007	Richards	See arguments above.	N/A.

Rather than merely reopening prosecution, Appellant respectfully requests that the claims be allowed because there is no foreseeable end to this cycle of new references being cited that do not teach or suggest encrypting the same group of channels using two different types of encryption and simulcasting the different versions. The Examiner has performed several searches and has not been able to find any references related to these claim limitations. Thus, Appellant requests that the claims be allowed.

Dependent Claim 31

Claim 31 depends from claim 29, and is therefore allowable over Richards for the reasons set forth above for claim 29. In addition, the rejection of dependent claim 31 is improper because Richards does not disclose or suggest the limitation added by claim 31, namely "wherein said different type of encryption is digital video broadcast ("DVB") encryption." Page 5 of the current Office Action cites col. 8, lines 36-43 of Richards for this limitation. However, this portion of Richards is completely silent as to the type of encryption used, let alone the use of DVB encryption.

Dependent Claim 32

Claim 32 depends from claim 29, and is therefore allowable over Richards for the reasons set forth above for claim 29. In addition, the rejection of dependent claim 32 is improper because Richards does not disclose or suggest the limitation added by claim 32, namely, "wherein said first group of unencrypted multimedia channels are subscription based channels." Page 5 of the current Office Action cites col. 18, lines 26-

40 of Richards for this limitation. However, this portion of Richards refers to a single event (e.g., a pay-per-view event) and is silent as to a group of subscription multimedia channels.

Dependent Claim 36

Claim 36 depends from claim 29, and is therefore allowable over Richards for the reasons set forth above for claim 29. In addition, the rejection of dependent claim 36 is improper because Richards does not disclose or suggest the limitation added by claim 36, namely, "transmitting a second group of unencrypted multimedia channels in an unencrypted format." Page 5 of the current Office Action cites col. 6, lines 30-38 of Richards for this limitation. However, this portion of Richards summarizes a symbolism convention used by Richards to refer to content or keys encrypted using a particular key, and is completely silent as to transmitting multimedia channels in an unencrypted format.

Dependent Claim 37

Claim 37 depends from claim 36, and is therefore allowable over Richards for the reasons set forth above for claims 29 and 36. In addition, the rejection of dependent claim 37 is improper because Richards does not disclose or suggest the limitation added by claim 37, namely, "wherein said second group of unencrypted multimedia channels are basic cable channels and said first group of unencrypted multimedia channels are subscription-based cable channels." Page 5 of the current Office Action again cites col. 18, lines 26-40 of Richards for this limitation. However, as discussed above, this portion of Richards summarizes a symbolism convention used by Richards to refer to content or keys encrypted using a particular key, and is completely silent as to a difference between basic cable channels and subscription-based cable channels.

Dependent Claim 38

Claim 38 depends from claim 37, and is therefore allowable over Richards for the reasons set forth above for claims 29, 36 and 37. In addition, the rejection of dependent claim 38 is improper because Richards does not disclose or suggest the limitation added by claim 37, namely:

> encrypting a first subset of said basic cable channels using said first type of encryption to produce a first group of encrypted basic cable channels;
>
> encrypting said first subset of said basic cable channels using said different type of encryption to produce a second group of encrypted basic cable channels; and
>
> concurrently transmitting said first group of encrypted basic cable channels with said second group of encrypted basic cable channels to said plurality of multimedia subscribers.

Page 5 and 6 of the current Office Action cite col. 11, lines 38-51 of Richards for these limitations. However, this portion of Richards refers to an embodiment wherein "CONTENT for programs A through D, but encrypted using respective keys SK_A_0 through SK_D_0." This portion of Richards also refers to a plurality of keys for program A. However, Appellant respectfully submits that this portion of Richards is completely silent as to the subject matter of claim 38.

Dependent Claim 39

Claim 39 depends from claim 38, and is therefore allowable over Richards for the reasons set forth above for claims 29, 36, 37 and 38. In addition, the rejection of dependent claim 39 is improper because Richards does not disclose or suggest the limitation added by claim 39, namely, "transmitting a second subset of said basic cable channels in an unencrypted format." Page 6 of the current Office Action again cites col. 6, lines 30-38 of Richards for this limitation. However, as discussed above, this portion of Richards summarizes a symbolism convention used by Richards to refer to content or keys encrypted using a particular key, and is completely silent as to transmitting a second subset of basic cable channels in an unencrypted format.

Dependent Claim 40

Claim 40 depends from claim 39, and is therefore allowable over Richards for the reasons set forth above for claims 29, 36, 37, 38 and 39. In addition, the rejection of dependent claim 40 is improper because Richards does not disclose or suggest the limitation added by claim 40, namely, "regularly transferring channels from said first subset of basic cable channels to said second subset of basic cable channels and channels from said second subset of basic cable to said first subset of basic cable channels." Page 6 of the current Office Action again cites col. 11, lines 38-51 of Richards for this limitation. However, as discussed above, this portion of Richards refers to an embodiment wherein "CONTENT for programs A through D, but encrypted using respective keys SK_A_0 through SK_D_0." This portion of Richards also refers to a plurality of keys for program A. However, this portion of Richards is completely silent as to the subject matter of claim 40.

Independent Claim 41

The rejection of independent claim 41 is improper because, among other reasons, Richards does not teach or suggest:

> a first encryption module to ***encrypt a plurality of first multimedia streams*** using conditional access ("CA") encryption; and
>
> a second encryption module to ***encrypt said same plurality of first multimedia streams using a different type of encryption***; and
>
> a ***quadrature amplitude modulation module*** to modulate said plurality of first multimedia streams encrypted in both CA encryption and said different type of encryption for ***simulcasting*** to a plurality of multimedia subscribers at the same time, the plurality of multimedia subscribers having either a new multimedia receiver or a legacy multimedia receiver, each new multimedia receiver being capable of decrypting said plurality of first multimedia streams encrypted in said different type of encryption and each legacy multimedia receiver being capable of decrypting said plurality of first multimedia streams encrypted in said CA encryption.

Appellant respectfully submits that Richards is completely silent as to quadrature amplitude modulation module that modulates a plurality of first multimedia streams encrypted in both CA encryption and a different type of encryption. The current Office Action does not fully address this limitation.

The rejection of claim 41 is also improper because, as explained above in connection with independent claim 29, Richards does not teach or suggest encrypting a plurality of first multimedia streams twice, once using CA encryption and a second time using a different type of encryption. Rather, Richards merely encrypts different programs using different keys. As also discussed above in relation to claim 29, Richards does not simulcast multimedia streams encrypted in both CA encryption and a different type of encryption.

Dependent Claim 43

Claim 43 depends from claim 41, and is therefore allowable over Richards for the reasons set forth above for claim 41. In addition, the rejection of dependent claim 43 is improper because Richards does not disclose or suggest the limitation added by claim 43, namely "wherein said different type of encryption is digital video broadcast ("DVB") encryption." As discussed above, page 5 of the current Office Action cites col. 8, lines 36-43 of Richards for this limitation. However, this portion of Richards is completely silent as to the type of encryption used, let alone the use of DVB encryption.

Dependent Claim 44

Claim 44 depends from claim 41, and is therefore allowable over Richards for the reasons set forth above for claim 41. In addition, the rejection of dependent claim 44 is improper because Richards does not disclose or suggest the limitation added by claim 44, namely "wherein said plurality of first multimedia streams are premium cable channels. Page 7 of the current Office Action cites col. 8, lines 36-43 of Richards for this limitation. However, this portion of Richards is completely silent as to premium cable channels.

Independent Claim 56

The rejection of independent claim 56 is improper because, among other reasons, Richards does not teach or suggest:

> ***encrypting*** a number of unencrypted multimedia channels at a headend ***using conditional access ("CA") encryption*** to produce a first group of encrypted multimedia channels;
>
> ***simultaneously encrypting the same unencrypted multimedia channels at the headend using a different type of encryption*** to produce a second group of encrypted multimedia channels;
>
> ***simulcasting*** said first group of encrypted multimedia channels with said second group of multimedia channels at the same time from the headend to a plurality of multimedia subscribers each having either a new multimedia receiver or a legacy multimedia receiver, each new multimedia receiver being capable of decrypting said second group of encrypted multimedia channels and each legacy multimedia receiver being capable of decrypting said first group of encrypted multimedia channels.

As explained above in connection with independent claim 29, Richards does not teach or suggest encrypting the same channels using both CA encryption and a different form of encryption. Rather, Richards merely encrypts different programs using different keys. As also discussed above in relation to claim 29, Richards does not simulcast differently encrypted versions of the same channels.

Independent Claim 57

The rejection of independent claim 57 is improper because, among other reasons, Richards does not teach or suggest:

> means for ***encrypting first channels using both conditional access ("CA") encryption and a different form of encryption***; and
>
> means for ***simulcasting*** said first channels encrypted in both CA encryption and said different form of encryption to subscribers simultaneously, the subscribers having either a new multimedia receiver or a legacy multimedia receiver, said first channels encrypted using said different form of encryption being decryptable by said new multimedia

receivers and said first channels encrypted using said CA encryption being decryptable by said legacy multimedia receivers.

As explained above in connection with independent claim 29, Richards does not teach or suggest encrypting first channels using both CA encryption and a different form of encryption. Rather, Richards merely encrypts different programs using different keys. As also discussed above in relation to claim 29, Richards does not simulcast differently encrypted versions of the same channels.

Independent Claim 58

The rejection of independent claim 58 is improper because, among other reasons, Richards does not teach or suggest:

encrypting a first set of channels using a ***first type of encryption***;

encrypting said first set of channels using a ***second type of encryption***; and

simultaneously broadcasting said encrypted sets of channels that have been respectively encrypted in said first type of encryption and said second type of encryption to subscribers having either a new multimedia receiver or a legacy multimedia receiver;

said channels encrypted using said second type of encryption being decryptable by said new multimedia receivers and said channels encrypted using said first type of encryption being decryptable by said legacy multimedia receivers.

As explained above in connection with independent claim 29, Richards does not teach or suggest encrypting a first set of channels using both a first type of encryption and a second type of encryption. Rather, Richards merely encrypts different programs using different keys. As also discussed above in relation to claim 29, Richards does not simultaneously broadcast differently encrypted versions of the same channels.

Dependent Claim 59

Claim 59 depends from claim 58, and is therefore allowable over Richards for the reasons set forth above for claim 58. In addition, the rejection of dependent claim 59 is

improper because Richards does not disclose or suggest the limitation added by claim 59, namely "transmitting a specified group of channels using no encryption." Page 8 of the current Office Action cites col. 6, lines 30-38 of Richards for this limitation. However, as discussed above, this portion of Richards summarizes a symbolism convention used by Richards to refer to content or keys encrypted using a particular key, and is completely silent as to specifying a group of channels using no encryption.

Dependent Claim 60

Claim 60 depends from claim 59, and is therefore allowable over Richards for the reasons set forth above for claims 58 and 59. In addition, the rejection of dependent claim 60 is improper because Richards does not disclose or suggest the limitation added by claim 60, namely "wherein said specified group of channels comprise basic cable channels and said first set of channels comprise premium channels." Page 8 of the current Office Action cites col. 8, lines 36-43 of Richards for this limitation. However, this portion of Richards is completely silent as to the subject matter of claim 60.

2. Rejection of claims 33-35 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Richards in view of Traw.

Claims 33-35 stand rejected as being allegedly unpatentable over Richards in view of Traw. For the reasons set forth below, Appellant respectfully submits that the rejection of claims 33-35 is improper.

Dependent Claim 33

Claim 33 depends from claim 29, and is therefore allowable over Richards for the reasons set forth above for claim 29. In addition, the rejection of dependent claim 33 is improper because the combination of Richards with Traw does not disclose or suggest the limitation added by claim 33, namely "compressing said first group of encrypted multimedia channels using a first compression type and said second group of encrypted multimedia channels using a second compression type." Page 9 of the current Office

Action correctly indicates that Richards does not teach this limitation. Appellant respectfully submits, however, that Traw does not remedy the deficiencies of Richards.

Page 9 of the current Office Action asserts that:

> Traw et al teaches compressing a first group of encrypted multimedia channels using a first compression type and the second group of encrypted multimedia channels using a second compression type. Traw et al teaches that the first compression type is MPEG-2. Traw et al teaches that the second compression type is MPEG-4.

However, Appellant respectfully submits that mere mention of MPEG-2 and MPEG-4 does not meet the requirements of claim 33. Rather, dependent claim 33 requires that two different compression types be applied to two differently encrypted versions of the same multimedia channels. By way of contrast with claim 33, Traw is completely silent as to using more than one compression type (e.g., MPEG-2 and MPEG-4) on the same multimedia channel. Rather, col. 4, lines 3-9 of Traw merely state that:

> MPEG is an acronym for Moving Picture Experts Group, and refers to an ISO committee that generates standards for digital video and audio compression. MPEG also refers to the name of algorithms promulgated by the MPEG committee. MPEG-1 is optimized for CD-ROM, MPEG-2 for broadcast quality video and MPEG-4 for low bandwidth video telephony.

Traw provides no other indication of how MPEG-2 and/or MPEG-4 would be used. In order to establish a *prima facie* case of obviousness for a claim, the prior art references must teach or suggest all the claim limitations. See M.P.E.P. § 2143. The subject matter of claim 33 is clearly missing from Richards and Traw, either individually or when combined.

Dependent Claim 34

Claim 34 depends from claim 33, and is therefore allowable over Richards and Traw for the reasons set forth above for claims 29 and 33. In addition, the rejection of dependent claim 34 is improper because the combination of Richards with Traw does not disclose or suggest the limitation added by claim 34, namely "wherein said first compression type is MPEG-2." As discussed above with respect to claim 33, Traw

provides no indication of when MPEG-2 should be used with a particular type of encryption.

Dependent Claim 35

Claim 35 depends from claim 34, and is therefore allowable over Richards for the reasons set forth above for claims 29, 33 and 34. In addition, the rejection of dependent claim 34 is improper because the combination of Richards with Traw does not disclose or suggest the limitation added by claim 33, namely "wherein said compression type is MPEG-4." As discussed above with respect to claim 33, Traw provides no indication of when MPEG-4 should be used with a particular type of encryption.

3. Rejection of claim 45 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Richards in view of Traw.

Claim 45 stands rejected as being allegedly unpatentable over Richards in view of Traw. For the reasons set forth below, Appellant respectfully submits that the rejection of claims 33-35 is improper.

Claim 45 depends from claim 41, and is therefore allowable over Richards for the reasons set forth above for claim 41. In addition, the rejection of dependent claim 45 is improper because the combination of Richards with Traw does not disclose or suggest the limitation added by claim 45, namely:

> a first compression module to employ a first type of compression on said plurality of first multimedia streams encrypted using said first compression type; and
>
> a second compression module to employ a second type of compression on said plurality of first multimedia streams encrypted using said second compression type.

Page 11 of the current Office Action asserts that:

> Traw et al teaches compressing a first group of encrypted multimedia channels using a first compression type and the second group of encrypted multimedia channels using a second compression type. Traw et al teaches that the first compression type is MPEG-2. Traw et al teaches that the second compression type is MPEG-4.

However, Appellant respectfully submits that mere mention of MPEG-2 and MPEG-4 does not meet the requirements of claim 33. Rather, dependent claim 33 requires that two different compression types be applied to two differently encrypted versions of the same multimedia channels. By way of contrast with claim 33, Traw is completely silent as to using more than one compression type (e.g., MPEG-2 and MPEG-4) on the same multimedia channel. Rather, col. 4, lines 3-9 of Traw merely state that:

> MPEG is an acronym for Moving Picture Experts Group, and refers to an ISO committee that generates standards for digital video and audio compression. MPEG also refers to the name of algorithms promulgated by the MPEG committee. MPEG-1 is optimized for CD-ROM, MPEG-2 for broadcast quality video and MPEG-4 for low bandwidth video telephony.

Traw provides no other indication of how MPEG-2 and/or MPEG-4 would be used. In order to establish a *prima facie* case of obviousness for a claim, the prior art references must teach or suggest all the claim limitations. See M.P.E.P. § 2143. The subject matter of claim 45 is clearly missing from Richards and Traw, either individually or when combined.

VIII. CONCLUSION

For the reasons set forth above, the rejections of claims 29, 31-41, 43-45 and 56-60 are improper and should be reversed.

Respectfully submitted,

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Date: January 24, 2008

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Appendices: Claims Appendix
Evidence Appendix (blank)
Related Proceedings Appendix (blank)

CLAIMS APPENDIX

29. A machine-readable storage medium having program code stored thereon which, when executed by a processor, cause said processor to perform the operations of:

encrypting a first group of unencrypted multimedia channels using conditional access ("CA") encryption to produce a first group of encrypted multimedia channels;

encrypting said first group of unencrypted multimedia channels using a different type of encryption to produce a second group of encrypted multimedia channels; and

simulcasting said first group of encrypted multimedia channels simultaneously with said second group of encrypted multimedia channels to a plurality of multimedia subscribers having either a new multimedia receiver or a legacy multimedia receiver, said second group of encrypted multimedia channels being decryptable by said new multimedia receivers and said first group of encrypted multimedia channels being decryptable by said legacy multimedia receivers.

31. The machine-readable storage medium as in claim 29 wherein said different type of encryption is digital video broadcast ("DVB") encryption.

32. The machine-readable storage medium as in claim 29 wherein said first group of unencrypted multimedia channels are subscription based channels.

33. The machine-readable storage medium as in claim 29 having program code stored thereon to cause said processor to perform the additional operations of:

compressing said first group of encrypted multimedia channels using a first compression type and said second group of encrypted multimedia channels using a second compression type.

34. The machine-readable storage medium as in claim 33 wherein said first compression type is MPEG-2.

35. The machine-readable storage medium as in claim 34 wherein said second compression type is MPEG-4.

36. The machine-readable storage medium as in claim 29 having program code stored thereon to cause said processor to perform the additional operations of:

transmitting a second group of unencrypted multimedia channels in an unencrypted format.

37. The machine-readable storage medium as in claim 36 wherein said second group of unencrypted multimedia channels are basic cable channels and said first group of unencrypted multimedia channels are subscription-based cable channels.

38. The machine-readable storage medium as in claim 37 having program code stored thereon to cause said processor to perform the additional operations of:

encrypting a first subset of said basic cable channels using said first type of encryption to produce a first group of encrypted basic cable channels;

encrypting said first subset of said basic cable channels using said different type of encryption to produce a second group of encrypted basic cable channels; and

concurrently transmitting said first group of encrypted basic cable channels with said second group of encrypted basic cable channels to said plurality of multimedia subscribers.

39. The machine-readable storage medium as in claim 38 having program code stored thereon to cause said processor to perform the additional operations of: transmitting a second subset of said basic cable channels in an unencrypted format.

40. The machine-readable storage medium as in claim 39 having program code stored thereon to cause said processor to perform the additional operations of:

regularly transferring channels from said first subset of basic cable channels to said second subset of basic cable channels and channels from said second subset of basic cable to said first subset of basic cable channels.

41. A headend system for processing multimedia streams comprising:

a first encryption module to encrypt a plurality of first multimedia streams using conditional access ("CA") encryption; and

a second encryption module to encrypt said same plurality of first multimedia streams using a different type of encryption; and

a quadrature amplitude modulation module to modulate said plurality of first multimedia streams encrypted in both CA encryption and said different type of encryption for simulcasting to a plurality of multimedia subscribers at the same time, the plurality of multimedia subscribers having either a new multimedia receiver or a legacy multimedia receiver, each new multimedia receiver being capable of decrypting said plurality of first multimedia streams encrypted in said different type of encryption and each legacy multimedia receiver being capable of decrypting said plurality of first multimedia streams encrypted in said CA encryption.

43. The headend system as in claim 41 wherein said different type of encryption is digital video broadcast ("DVB") encryption.

44. The headend system as in claim 41 wherein said plurality of first multimedia streams are premium cable channels.

45. The headend system as in claim 41 further comprising:

a first compression module to employ a first type of compression on said plurality of first multimedia streams encrypted using said first compression type; and

a second compression module to employ a second type of compression on said plurality of first multimedia streams encrypted using said second compression type.

56. A computer-implemented method for processing multimedia channels comprising:

encrypting a number of unencrypted multimedia channels at a headend using conditional access ("CA") encryption to produce a first group of encrypted multimedia channels;

simultaneously encrypting the same unencrypted multimedia channels at the headend using a different type of encryption to produce a second group of encrypted multimedia channels;

simulcasting said first group of encrypted multimedia channels with said second group of multimedia channels at the same time from the headend to a plurality of multimedia subscribers each having either a new multimedia receiver or a legacy multimedia receiver, each new multimedia receiver being capable of decrypting said second group of encrypted multimedia channels and each legacy multimedia receiver being capable of decrypting said first group of encrypted multimedia channels.

57. A system comprising:

means for encrypting first channels using both conditional access ("CA") encryption and a different form of encryption; and

means for simulcasting said first channels encrypted in both CA encryption and said different form of encryption to subscribers simultaneously, the subscribers having either a new multimedia receiver or a legacy multimedia receiver, said first channels encrypted using said different form of encryption being decryptable by said new multimedia receivers and said first channels encrypted using said CA encryption being decryptable by said legacy multimedia receivers.

58. A method for deploying new multimedia receivers comprising:

encrypting a first set of channels using a first type of encryption;

encrypting said first set of channels using a second type of encryption; and

simultaneously broadcasting said encrypted sets of channels that have been respectively encrypted in said first type of encryption and said second type of encryption to subscribers having either a new multimedia receiver or a legacy multimedia receiver;

said channels encrypted using said second type of encryption being decryptable by said new multimedia receivers and said channels encrypted using said first type of encryption being decryptable by said legacy multimedia receivers.

59. The method as in claim 58 further comprising:

transmitting a specified group of channels using no encryption.

60. The method as in claim 59 wherein said specified group of channels comprise basic cable channels and said first set of channels comprise premium channels.

EVIDENCE APPENDIX

NONE.

RELATED PROCEEDINGS APPENDIX

NONE.